

PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a new traffic control signal at the intersection of Western Parkway and Waldorf Marketplace Entrance in Charles County, Maryland. Western Parkway is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to operate in a NEMA four (4) phase, full-traffic-actuated mode. There will be an exclusive/permissive left turn phase for the southbound movement of Western Parkway. The Western Parkway through movements will operate concurrently. The Waldorf Marketplace Entrance movements will operate alone.

An eight phase, full-traffic-actuated, solid state digital controller with intersection monitor and harness, battery back-up, and (2) four-channel rack mounted time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

EQUIPMENT LIST

A. Material to be furnished by SHA.
None.

B1. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	818	27 ft. steel mast arm pole with a 50 ft. mast arm.
1	EA	818	27 ft. steel twin mast arm pole with 50 ft. and 70 ft. mast arms.
1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, two (2) four-channel loop detector amplifiers, and telemetry equipment. (Note: Controller and cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650).
5	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, five section (R,Y,G,A,G,G,A) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	814	12 in./8 in., one-way, five section (12 in. Y,A,G/A/ 8 in. R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
1	EA	813	36 in. x 42 in. R 10-12 sign with mast arm mounting hardware.
4	EA	813	48 in. x 48 in. W 3-3 "NEW" sign for ground mounting.
1	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.
1	EA	813	30 in. x 36 in. R 3-5(R) sign with mast arm mounting hardware.
1	EA	813	16 in. x Var. D-3(1) sign with mast arm mounting hardware.
2	EA	813	16 in. x Var. D-3(1) (Dual faced) sign with mast arm mounting hardware.
4	EA	---	Non-invasive probe (set of 3) with 750 ft. lead-in cable.
2	EA	806	20 ft. luminaire arm.
2	EA	806	250 W H.P.S. lamp and luminaire.
1	EA	---	Telemetry package for existing base mounted cabinet/controller.

CONTACT LIST

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
410-841-1003

Mr. Ernest Hadshon
Assistant District Engineer - Utility
410-841-5462

Mr. Chuck E. George
Assistant District Engineer - Maintenance
410-841-5461

Mr. Richard L. Doff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
SMECO
Mr. Chuck Stone
4414 Crain Highway
White Plains, Maryland 20895
301-705-8686

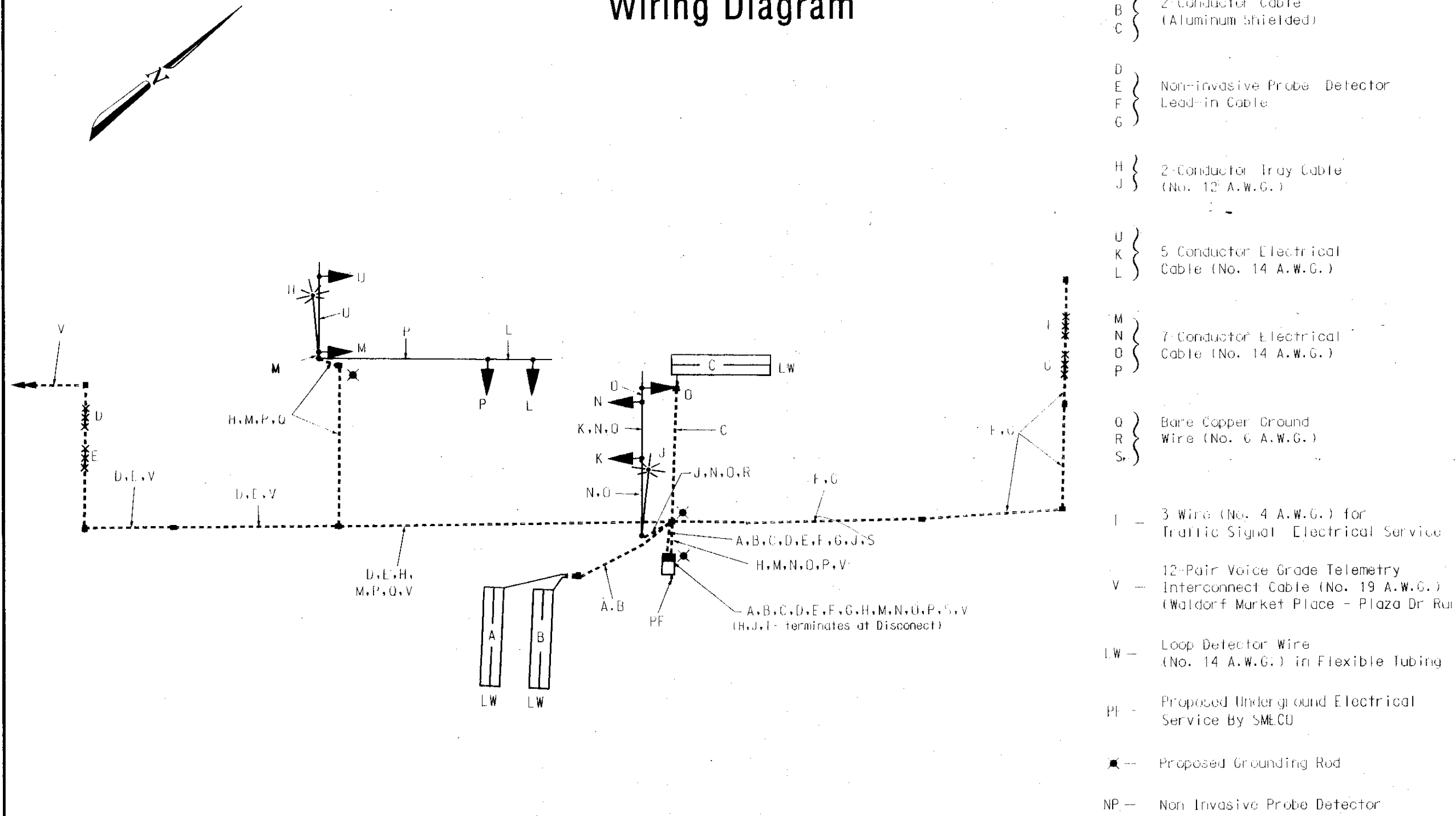
B2. Equipment to be furnished and/or installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic (to include temporary police control).
3	CY	205	Test pit excavation.
11	EA	811	Handhole.
1275	LF	815	Sawcut for signal loop detector.
360	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
1785	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
325	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
90	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
700	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
25	LF	810	3-wire (No. 4 A.W.G.) electrical cable.
1200	LF	810	12-Pair voice grade telemetry (jelly filled) interconnect cable (No. 19 A.W.G.).
250	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
20	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
250	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
135	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
670	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
200	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - slotted in roadway.
15	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
8.5	CY	801	Concrete foundation for traffic signal equipment.
3	EA	804	Ground rod 3/4 in. diameter x 10 ft. length.
1	EA	807	Control and distribution equipment (120/240 V, one phase, three wire system) for a type B-13 underground electrical service.
200	LF	556	12 in. wide HAPPTM - white for crosswalk.
90	LF	556	24 in. wide HAPPTM - white for stop line.
133	LF	812	4 in. x 6 in. wood sign support.
Lump Sum	LS	---	As-built for Charles County (on CADD).

Phase Chart

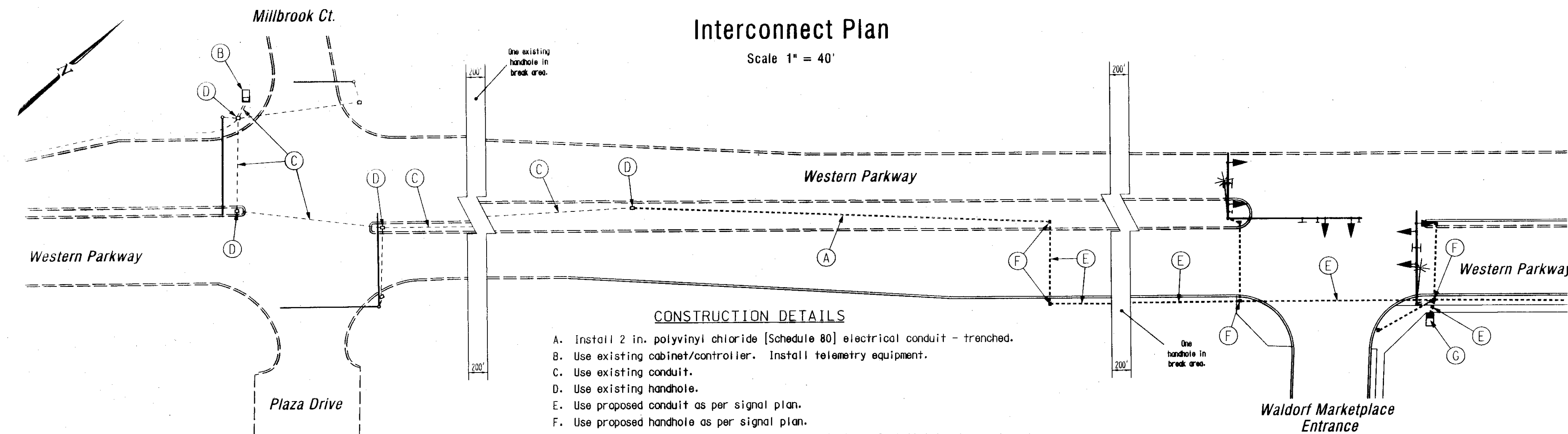
	1	2	3	4	5	6	7
Phase 2 & 5	R	R	G	G	R	R	
5 Change	R	R	G	G	R	R	
Phase 2 & 6	G	G	G	G	R	R	
2 & 6 Change	Y	Y	Y	Y	R	R	
Phase 8	R	R	R	R	G	G	
8 Change	R	R	R	R	Y	Y	
Flashing operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	

Wiring Diagram



Interconnect Plan

Scale 1" = 40'



MDOT - SHA
O.O.T.S
T.E.D.D.

S.H.A. Approval _____ Date _____
Addition of Interconnect



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)

Western Parkway at Waldorf Marketplace Entrance

DRAWN BY: Frank Hoeckel	F.A.P. NO. N/A	TS. NO. 4226	SHEET NO. 2 OF 2
CHECKED BY: BT 6/03	S.H.A. NO. BW996M82		
SCALE: N/A	COUNTY: Charles County	T.I.M.S. NO. F696	
DATE: May 6, 2003	LOG. MILE: _____		